

AMENDMENT(S) TO THE CLAIMS

1-21. (Canceled)

22. (New) A disc screen apparatus for classifying mixed recyclable materials, comprising:

a frame;

a plurality of shafts;

a plurality of discs mounted on the shafts shaped for agitating mixed recyclable materials;

means for rotatably supporting the shafts on the frame so that the discs of adjacent shafts are interleaved and define a laterally inclined trough and a pair of vertically inclined regions extending from opposite sides of the trough; and

drive means connected to the shafts for rotating the shafts so that mixed recyclable materials deposited on the trough will be divided into streams passing through the discs, over the upper ends of the inclined regions, and off a lower end of the trough.

23. (New) The disc screen apparatus of Claim 22 and further comprising means for varying an angle of inclination of the laterally inclined trough.

24. (New) The disc screen apparatus of Claim 22 and further comprising means for varying an angle of inclination of at least one of the inclined regions.

25. (New) The disc screen apparatus of Claim 22 and further comprising means for blowing air against the inclined regions.

26. (New) The disc screen apparatus of Claim 22 wherein a first portion of the discs of the trough and the discs of a first one of the inclined regions are rotated in a first direction and a second portion of the discs of the trough and the discs of a second one of the inclined regions are rotated in a second direction opposite the first direction.

27. (New) The disc screen apparatus of Claim 22 wherein discs of the trough are spaced
2 so that broken glass will fall therebetween while containers will tumble off the lower end of the
trough, and the discs of the inclined regions are spaced and the angle of inclination of the inclined
4 regions is selected so that newspaper will be conveyed over the upper ends of the inclined regions.

28. (New) A disc screen apparatus for classifying mixed recyclable materials, comprising:
2 a frame;
a plurality of shafts;
4 a plurality of discs mounted on the shafts shaped for agitating mixed recyclable materials;
a plurality of bearings rotatably supporting the shafts on the frame in mounting positions so
6 that the discs of adjacent shafts are interleaved and define a laterally inclined trough and a pair of
inclined regions extending from opposite sides of the trough; and
8 a drive mechanism for rotating a first portion of the discs of the trough and the discs of a first
one of the inclined regions in a first direction and a second portion of the discs of the trough and the
10 discs of a second one of the inclined regions in a second direction opposite the first direction.

29. (New) The disc screen apparatus of Claim 28 and further comprising means for
2 varying an angle of inclination of the laterally inclined trough.

30. (New) The disc screen apparatus of Claim 28 and further comprising means for
2 varying an angle of inclination of at least one of the inclined regions.

31. (New) The disc screen apparatus of Claim 28 and further comprising means for
2 blowing air against the inclined regions.

32. (New) The disc screen apparatus of Claim 28 wherein the discs are spaced so that
2 mixed recyclable materials deposited on the trough will be divided into streams passing through the
discs, over the upper ends of the inclined regions, and off a lower end of the trough.

33. (New) The disc screen apparatus of Claim 28 wherein discs of the trough are spaced so that broken glass will fall therebetween while containers will tumble off the lower end of the trough, and the discs of the inclined regions are spaced and the angle of inclination of the inclined regions is selected so that newspaper will be conveyed over the upper ends of the inclined regions.

34. (New) An apparatus for classifying mixed recyclable materials, comprising a generally V-shaped disc screen including a plurality of interleaved discs defining a trough and a pair of inclined regions extending from opposite sides of the trough and wherein the discs are configured and spaced so that mixed recyclable materials deposited on the trough will be divided into streams passing through the discs, over the upper ends of the inclined regions, and off a lower end of the trough.

35. (New) An apparatus for classifying mixed recyclable materials, comprising:
a disc screen including a plurality of interleaved discs configured to agitate mixed recyclable materials and defining a trough and a pair of inclined regions extending from opposite sides of the trough and wherein the discs are spaced apart so that mixed recyclable materials deposited on the trough will be divided into a plurality of streams.

36. (New) An apparatus for classifying mixed recyclable materials, comprising:
a disc screen including a plurality of interleaved discs configured to agitate mixed recyclable materials and defining a trough and a pair of inclined regions extending from opposite sides of the trough; and
means for varying an angle of inclination of the inclined regions for optimizing flow of a portion of the mixed recyclable materials up the inclined regions and over a pair of upper ends of the inclined regions.

37. (New) The apparatus of Claim 36 and further comprising means for varying an angle of inclination of the trough for optimizing flow of a second portion of the mixed recyclable materials off of a lower end of the trough.

38. (New) An apparatus for classifying mixed recyclable materials, comprising:

2 a disc screen including a plurality of interleaved discs configured to agitate mixed recyclable
materials and defining a trough and a pair of inclined regions extending from opposite sides of the
4 trough; and

means for varying an angle of inclination of the inclined trough.